This application has been carefully reviewed in light of the Office Action dated July 6, 2004. Claims 1 to 12, 19 to 25 and 29 to 35 remain pending in the application, of which Claims 1, 9, 12, 19, 29, 32 and 34 are independent. Reconsideration and further examination are respectfully requested.

Claims 1, 9, 12, 19, 29, 32 and 34 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,321,270 (Crawley), and Claims 2 to 8, 10, 11, 20 to 25, 30, 31, 33 and 35 were rejected under 35 U.S.C. § 103(a) over Crawley in view of U.S. Patent No. 6,366,913 (Fitler). The rejections are respectfully traversed and the Examiner is requested to reconsider and withdraw the rejections in light of the following comments.

The present invention concerns users being able to register for and receive change information for only particular types of changes made to a directory contained in a directory server. According to the invention, plural groups/multicast groups are established, where each group/multicast group corresponds to a particular type of change made to the directory in the directory server. For instance, types of changes that may be made to the directory are to add an entry in the directory, to delete and entry, or to modify an entry. For each of these respective types of changes, one multicast group is established. Thus, for add changes, an ADD multicast group is established, for delete changes, a DELETE multicast group is established, and for modify changes, a MODIFY multicast group is established. The user decides what types of change information he wishes to receive by registering with one or more of the multicast groups. For example, if a user only wants to be notified when an entry in the directory has been added and does not want to be

notified of any other types of changes, the user simply registers with the ADD multicast group. Then, when an entry is added to the directory, change information regarding the added entry is multicast to all members of only the ADD multicast group. Thus, it can readily be seen that, unlike conventional systems that simply multicast all changes made to a directory to everyone, only select users (that are members of the multicast group corresponding to the type of change) receive the multicast transmission.

Referring specifically to the claims, amended independent Claim 1 is a method for multicasting changes made in a directory server which contains information in a directory and which makes a change to the information in the directory in accordance with a directory change operation, comprising the steps of establishing plural multicast groups, each multicast group corresponding to a respective change category for a type of change made to the directory in the directory server, and submitting change information for multicasting responsive to a change being made to the directory in the directory server, the change information being submitted to each member which belongs to a selected one of the plural multicast groups corresponding to the change category of the type of change made to the directory in the directory server.

Amended independent Claims 32 and 34 are method and computer-executable process steps claims, respectively, that are along the lines of Claim 1, but which do not call for the change information to be submitted via multicasting.

Amended independent Claim 9 is directed to the user side for receiving change information. More specifically, Claim 9 is a method for obtaining directory server change information from a directory server which contains information in a directory and which makes a change to the information in the directory in accordance with a directory

change operation, comprising the steps of registering as a member of at least one of a plurality of multicast groups, each of the plurality of multicast groups corresponding to a respective change category for a type change made to a directory in the directory server, and receiving from the directory server change information submitted to each member which belongs to the multicast group corresponding to the change category of the type of change made to the directory in the directory server.

Amended independent Claim 29 is a computer-executable process steps claim that substantially corresponds to Claim 9.

Amended independent Claim 12 is directed to the directory server side, and more specifically is an apparatus for multicasting changes made in a directory server which contains information in a directory and which makes a change to the information in the directory in accordance with a directory change operation, wherein plural multicast groups are established such that each multicast group corresponds to a respective change category for a type of change made to the directory in the directory server, comprising a processor for executing executable process steps, and a memory medium storing executable process steps, wherein the executable process steps comprise (a) generating change information responsive to a change being made to the directory in the directory server, wherein the change information corresponds to the type of change made to the directory, and (b) submitting the change information to each member which belongs to a selected one of the plural multicast groups corresponding to the change category of the type of change made to the directory in the directory server.

Amended independent Claim 19 is a computer-executable process steps claim that substantially corresponds to Claim 12.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of the present invention. More particularly, the applied art is not seen to disclose or to suggest at least the feature of submitting change information to each member which belongs to a selected one of plural groups/multicast groups, where each group/multicast group corresponds to a respective change category of a type of change made to a directory in a directory server. Along the same lines, the applied art is not seen to disclose or to suggest receiving a multicast transmission from the directory server, the multicast transmission containing change information submitted to each member which belongs to the multicast group corresponding to the change category of the type of change made to the directory in the directory server.

Crawley merely discloses that control information is multicast by a control node to other nodes in a communication path. One of the node is selected as a control point and stores a database that includes a network topology. When the control information is established in the control point node, the control point node multicasts the control information to the other nodes in the network topology. Thus, if a new node is added to the network topology, the control information changes and the control point node updates the topology and then multicasts new (updated) control information to all the other nodes. Thus, while Crawley may change its network topology for multicasting messages when a node is added or deleted from the network, there simply is nothing in Crawley in which any multicast groups corresponding to a type of change made to the directory are established. Rather, any and all changes made to the network topology in Crawley result in all nodes receiving the new control information. That is, if a new node is added to the topology, all nodes in the network receive the new control information via multicasting, if a node is

- 13 -

deleted, all nodes in the network receive the new control information. Thus, there is simply no correlation in Crawley between types of changes made and multicast groups corresponding to the changes.

To emphasize some differences between Crawley and the present invention, Crawley requires that all nodes in the network topology receive the new control information; otherwise, the communication path will fail due to erroneous topology information in a node that may attempt to transmit information to a non-existent node. Thus, there simply is no reason for Crawley to establish plural multicast groups corresponding to a plurality of change categories. Moreover, if such plural multicast groups could somehow be found to exist in Crawley, it would nonetheless require that all nodes be members of each group in order to keep their control information up to date. Thus, it can clearly be seen that Crawley function in any related manner as claimed in the present invention.

Moreover, in the present invention, not all nodes in a network receive the multicast change information each time a change is made in the directory. Rather, only those members (nodes) that have registered with a particular multicast group corresponding to a particular type of change category receive the multicast transmission. Accordingly, the present invention reduces the network traffic, as well as reducing the number of unwanted messages being received by those users that do not want to receive, for example, modify change information.

In view of the foregoing, it can clearly be seen that Crawley fails to disclose or to suggest the features of independent Claims 1, 9, 12, 19, 29, 32 and 34, and therefore, these claims are not anticipated by Crawley.
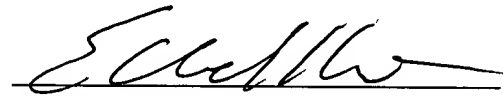
Fitler is not seen to add anything that, when combined with Crawley, would have disclosed or suggested the foregoing features of the present invention. In this regard, Fitler is merely seen to disclose that different groups are established to receive multicast messages, where the groups are based on such items as location, department, etc. Messages can then be multicast to the group members of a group using multicast, where members that are included in a directory server are looked-up to determine who is to receive the message. However, like Crawley, Fitler is not seen to disclose anything with regard to submitting change information to each member which belongs to a selected one of plural groups/multicast groups, where each group/multicast group corresponds to a respective change category of a type of change made to a directory in a directory server. Along the same lines, the applied art is not seen to disclose or to suggest receiving a multicast transmission from the directory server, the multicast transmission containing change information submitted to each member which belongs to the multicast group corresponding to the change category of the type of change made to the directory in the directory server.

In view of the foregoing deficiencies of the applied art, all of Claims 1 to 12, 19 to 25 and 29 to 35 are believed to be allowable.

No other matters having been raised, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

Attorney for Applicant
Edward A. Kmett
Registration No. 42,746

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-2200
Facsimile: (212) 218-2200

CA_MAIN 87066v1

- 16 -